

## Criterion C: Development

### **Introduction:**

Throughout the development of my product, I utilized three main concepts: a no SQL database, javascript asynchronous functions, and third-party hosting services.

### **No SQL Database:**

The main difference between SQL and no SQL databases is that SQL databases are table based, whereas no SQL databases are document based. No SQL databases are less structured, allowing more flexibility when creating models and schemas. For this reason, I chose to use MongoDB, which is a no SQL database. Another benefit of MongoDB is the fact that it provides faster and easier access to querying functions. MongoDB also works very well natively with nodejs. These reasons helped me efficiently and effectively create a product with a robust database backend.

### **Asynchronous Function:**

Asynchronous functions are a significant component of javascript; asynchronous functions allow the javascript compiler to continue processing other lines of code while it awaits a response from another section of code. I mainly used asynchronous functions when querying the database.

Asynchronous allowed me to query the database, retrieve information, and use that information to perform backend functions or display them on the front end. Overall, asynchronous functions were critical to my success in developing my product.

### **Third-Party Hosting Services:**

The third and final aspect of my product is the third-party hosting services I employ. There were two primary services that I availed myself of MongoDB Atlas and Heroku. MongoDB Atlas allowed me to store the information from my database in the cloud; Heroku allowed me to host my website online. Heroku would communicate with MongoDB Atlas to retrieve or store data in the database. These two hosting services were critical in allowing me to make my product accessible anywhere.

**Word Count:** 293